

REMARKS

Applicant respectfully requests reconsideration of the present application, as amended.

Claims 1-13 are pending in the present application.

The Examiner has objected to the drawings under 37 C.F.R. § 1.83(a) as not showing every feature of the invention. In particular, the Examiner stated that the drawings must show the features (1) that “the particles are evenly settled on and around the light emitter, as recited in claim 1” and (2) that “the particles settle to a lower position towards the periphery of the base of the cavity” (page 2 of the 12/31/03 Office Action).

It is submitted that the drawings, as originally filed, do show every feature of the invention as claimed. For example, the shaded region in each of Figures 3 and 4 shows that the particles 25 in the epoxy 26 are evenly settled on and around the light emitter 21. In addition, the shaded region in each of the Figures 3-4 also shows that the particles are settled to the lower position towards the periphery of the base of the cavity (see the shaded portions around the reference numbers 23 and 24 in Figures 3-4). Thus, it is submitted that the drawings of the above-identified patent application, as originally filed, satisfy the requirements of 37 C.F.R. § 1.83(a).

The Examiner has also rejected claims 1 and 10-11 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner states that the term “semi-fluid coating” is not disclosed in the specification. In addition, the Examiner states that the language in claims 10 and 11 imply that the coating includes a coating material, particles of another material, and an adhesive material.

It is submitted that claims 1 and 9-10 have been amended. Support for amended claims 1 and 9-10 is found in the patent application as originally filed.

For example, the specification at page 6, lines 16-24 describes that the coating applied over the light emitter is a viscous slurry before being cured. The coating, after being applied over the light emitter within the cavity and after the particles have settled evenly within the cavity on and around the light emitter, is cured (see Figures 3-4 and the specification at page 6, lines 30-31). Figures 3-4 of the drawings also show that the particles in the coating are evenly settled on and around the light emitter within the cavity. It is submitted that the amendments to the claims do not add new matter.

It is submitted that claims 1 and 10-11, as amended, satisfy 35 U.S.C. § 112, first paragraph. For example, amended claim 1 states in part that the coating is “a viscous slurry when applied over the light emitter, and hardens when cured after being applied over the light emitter”. In addition, the amended claim 1 further states that “when the coating, when being a viscous slurry, is applied over the light emitter, the platform and the cavity allow the particles in the coating to be evenly settled on and around the light emitter within the cavity before the coating is cured.”

Moreover, amended claim 1 states that the coating includes an adhesive material and particles of another substance. Furthermore, amended claim 10 has also been amended to clearly claim the subject matter of the present invention. Thus, it is submitted that the Examiner’s rejections under 35 U.S.C. § 112, first paragraph, have been overcome.

Claims 1-2, 6-7, 9, and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,555,335 of Johnson (“Johnson”) in view of U.S. Patent No. 6,340,824 of Komoto et al. (“Komoto”).

Claims 1, 3-6, 9, and 12-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP patent application publication no. JP 62-235,787 (JP

62-235,787) in view of Komoto.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Komoto and U.S. Patent No. 5,019,746 of Merg ("Merg"), or in the alternative, over JP 62-235,787 in view of Komoto and Merg.

Claims 10-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Komoto and U.S. Patent No. 5,813,753 of Vriens et al. ("Vriens"), or in the alternative, over JP 62-235,787 in view of Komoto and Vriens.

As described above, claims 1 and 9-10 have been amended. It is submitted that the combination of Johnson, Komoto, and JP 62-235,787 does not render amended claim 1 unpatentable under 35 U.S.C. § 103(a).

It is submitted that the combination of Johnson, Komoto, and JP 62-235,787 does not disclose a coating having an adhesive material and particles of another substance, wherein the coating is a viscous slurry when being applied over a light emitter that is mounted on a projecting platform within a cavity, and hardens when cured after being applied to the light emitter, wherein when the coating, when being a viscous slurry, is applied over the light emitter, the platform and the cavity allow the particles in the coating to be evenly settled on and around the light emitter within the cavity before the coating is cured.

On the contrary, neither Johnson nor JP 62-235,787 shows an initially semi-fluid coating layer containing particles of another substance being applied to a light emitter (see Johnson Figures 4-6 and JP 62-235,787 Figures 1-3). As for Komoto, although Figures 96A-B and 103-108 do show pieces of fluorescent material being placed around a LED (see Figure 96B of Komoto), the pieces are planar pieces and are formed by sintering a mixed material containing the fluorescent material (see Komoto col. 39, lines 60-63 and col. 40,

lines 5-30). This means that the pieces are solid-state pieces that are then placed near the light emitter (see Komoto col. 39, lines 60-63 and col. 40, lines 5-8 and 15-19). Given the fact that none of the references shows a coating applied to the light emitter when being a viscous slurry, and hardens when cured, they also do not teach or suggest the feature of making the particles within the coating to be evenly settled on and around the light emitter within the cavity before the coating is cured.

In contrast, amended claim 1 states in part that

a coating having an adhesive material and particles of another substance, wherein the coating is a viscous slurry when applied over the light emitter, and hardens when cured after being applied over the light emitter, wherein when the coating, when being a viscous slurry, is applied over the light emitter; the platform and the cavity allow the particles in the coating to be evenly settled on and around the light emitter within the cavity before the coating is cured.

(Amended claim 1)(Emphasis added).

In addition, it is submitted that the combination of Johnson, Komoto, and JP 62-235,787 does not disclose a light emitting device that has (1) a cavity within a base substrate, (2) a projecting platform at the base of the cavity, and (3) a coating having particles of another substance, wherein the coating is a viscous slurry when applied over the light emitter, and then hardens when cured, wherein the platform and the cavity allow the particles in the coating to be evenly settled on and around the light emitter within the cavity before the coating is cured (Emphasis Added).

On the contrary, neither Johnson nor JP 62-235,787 shows a coating layer containing particles of another substance being applied to a light emitter when

being a viscous slurry (see Johnson Figures 4-6 and JP 62-235,787 Figures 1-3). As for Komoto, it does not show the projecting platform and the pieces of fluorescent material being placed around a LED are planar pieces and are formed by sintering a mixed material containing the fluorescent material (see Komoto col. 39, lines 60-63 and col. 40, lines 5-8 and 15-19). This means that none of the cited reference shows, teaches, or suggests using a projecting platform to hold a light emitter within a cavity and mixing fluorescent particles in a semi-fluid coating such that when the coating is applied to the light emitter, the particles in the coating are evenly settled on and around the light emitter within the cavity before the coating is cured.

In contrast, amended claim 1 states in part that

a base substrate with a cavity to form a reflective cup;
a projecting platform at the base of the cavity;
a light emitter mounted on the projecting platform;
a coating having an adhesive material and particles of another substance, wherein the coating is a viscous slurry when applied over the light emitter, and hardens when cured after being applied to the light emitter, wherein when the coating, when being a viscous slurry, is applied over the light emitter, the platform and the cavity allow the particles in the coating to be evenly settled on and around the light emitter within the cavity before the coating is cured.

(Amended claim 1)(Emphasis added).

Given that claims 2-13, as amended, depend from amended claim 1, it is likewise submitted that claims 2-13, as amended, are also patentable under U.S.C. § 103 in view of the prior art references cited by the Examiner.

In view of the amendments and arguments set forth herein, it is respectfully submitted that the applicable rejections and objections have been overcome. Accordingly, it is respectfully submitted that claims 1-13, as amended, should be found to be in the condition for allowance.

Respectfully submitted,

Kee Yean Ng

BY: 

Thomas X. Li

Reg. No. 37,079

Date: March 16, 2004

Tel. No.: (650) 485-4881

Agilent Technologies, Inc.
Legal Department, DL429, IPA
P.O. Box 7599
Loveland, CO 80537-0599